



**Created : 10/Nov/2009 6:37:34 AM**



RATE OF PENETRATION		INTERPRETED LITHOLOGY	MD meters	LITHOLOGY	CORE	OIL SHOWS	TOTAL GAS	CHROMATOGRAPH		REMARKS
ROP (0-100m/hr)	WOB (klb)							1	10000	
100 90 80 70 60 50 40 30 20 10	200 190 180 170 160 150 140 130 120 110		1:500				TOTAL GAS 20   40   60   80   100 unit BACKUP TOTAL GAS 280   460   640   820   1000 unit	Methane ppm 1 Ethane ppm 1 Propane ppm 1 iso-Butane ppm 1 n-Butane ppm 1 iso-Pentane ppm 1 n-Pentane ppm 10   100   1000   10000		
25 Oct 09 26 Oct 09 RB3 216mm (8-1/2") Reed HP219 Jets: 3x14 In: 1184m Out: 1366m Drilled: 182m in 35.9hrs  WOB: 0.3 - 12.2 klbf RPM: 51 - 140 GPM: 144 - 332 SPP: 565 - 1357 psi			1190 1200 1210 1220 1230 1240 1250 1260 1270 1280				TG: 0.82unit @ 1184m		MW 10.1 FV 48 PV 16 YP 24 Gels 4/6 F 8.0 Ck 1.0 Sol 8.3 pH 8.5 Cl 20.0k  SANDSTONE: v lt gry-lt brn gy, v f-v crs, dom m-crs, ang-sbrnd, v p srtd, mod sil cmt, com-abd wh-lt brn argill & slt mtrx, quartzose w/clr-op qtz gr, rr gn & blk cht lith, tr blk c detr, fri-mod hd, fr-gd inf por, no fluor  CLAYSTONE: off wh-m brn, v slt & v aren, v kao i/p, sli carb, tr blk c flks, tr micrmic, frm-mod hd, v disp, n fiss  MW 10.3 FV 47 PV 15 YP 29 Gels 7/9 F 7.8 Ck 2.0 Sol 9.2 pH 8.5 Cl 17.0k  COAL: v dk brn-dom blk, blk-y-sbconch frac, ea-sli sbvit lstr, sli-m argill, mod hd	

WOB: 2.3 - 16.0 klbf  
RPM: 50 - 158  
GPM: 165 - 394  
SPP: 950 - 1345 psi

26 Oct 09  
27 Oct 09

RB4 216mm (8-1/2")  
Reed TD43 AKP3  
Jets: 3x14  
In: 1366m Out: 1378m  
Drilled: 12.0m in 1.3hrs

27 Oct 09  
28 Oct 09

28 Oct 09  
31 Oct 09

NB5 156mm (6-1/8")  
Smith MDi613  
Jets: 3x12  
In: 1378m Out: 1478m  
Drilled: 100m in 5.9hrs

WOB: 2.6 - 6.5 klbf  
RPM: 40 - 50  
GPM: 221 - 332  
SPP: 960 - 1060 psi

1290  
1300  
1310  
1320  
1330  
1340  
1350  
1360  
1370  
1380  
1390  
1400  
1410  
1420  
1430

CLAYSTONE: off wh-m brn, v slt & v f  
aren, v kao i/p, sli carb, tr blk c flks, tr  
micrmic, rr pyr, frm-mod hd, v disp, n  
fiss

MW 10.35 FV 54 PV 20 YP 34  
Gels 7/10 F 7.0 Ck 2.0 Sol 10.0  
pH 8.5 Cl 18.0k

SANDSTONE: v lt gry-lt brn gy, v f-gt,  
dom m, ang-sbrnd, v p srtd, mod sil  
cmt, abd off wh-lt brn argill & slt mtrx,  
quartzose w/clr-op qtz gr, rr gn &  
blk cht lith, tr blk c detr, tr pyr, mod  
hd, fr inf por, no fluor

CLAYSTONE: off wh-m brn, dom lt  
brn, v slt & v f aren, v kao i/p, sli carb,  
tr blk c flks, tr micrmic, tr pyr, mod  
hd, v disp, sli sbfiss

Survey at 1354m  
N60degSE  
1.5 degs

CLAYSTONE: off wh-m gn gry-m brn  
gry, mod slty, tr vf off wh alt fspr gr, tr  
brn-blk carb spks, tr micrmic, sft, v  
disp, sli sbfiss

Run#1 HALS - BHC - PEX  
1361 - 299m  
GR to Surface

178mm (7") casing shoe  
at 1376mMD

SANDSTONE: lt gry, vf-f, occ m, dom  
f, sbang-sbrnd, mod srtd, wk sil cmt,  
abd off wh argill & mtrx, abd alt fspr  
gr, com rd brn gry & gn, lith, tr qtz gr,  
tr c brn mic flk, tr v f blk carb detr, tr  
pyr, fri, v p vis por, no fluor

Formation L.O.T. @ 1382m  
MW: 9.8ppg EMW: 13.1ppg

CLAYSTONE: off wh-m gn gry-m gry,  
occ m brn gry, mod slty, tr v f off wh  
alt fspr gr, tr brn-blk carb spks, tr  
micrmic, frm, v disp, sli sbfiss

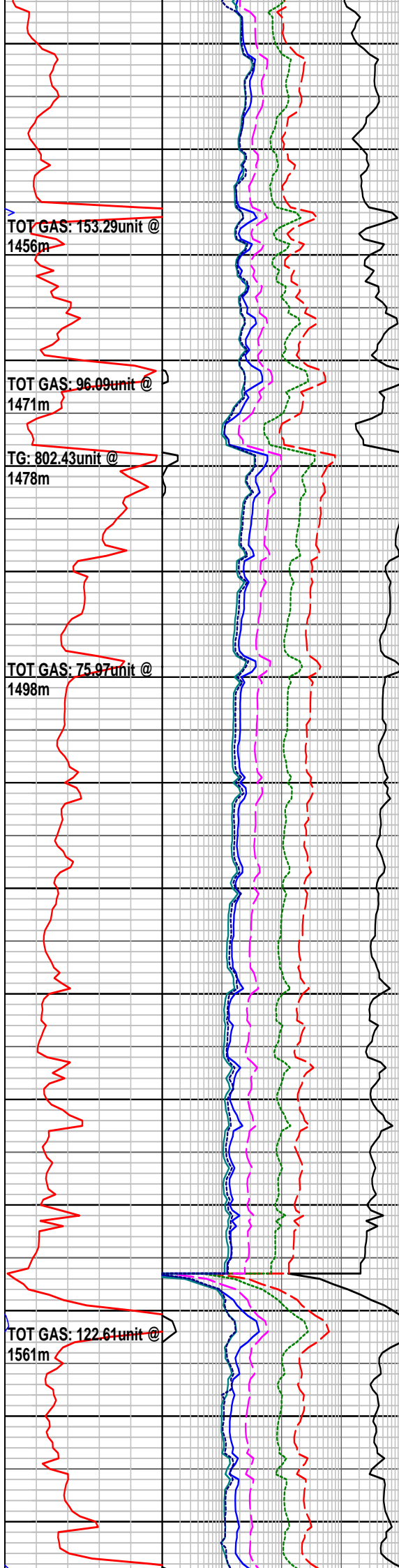
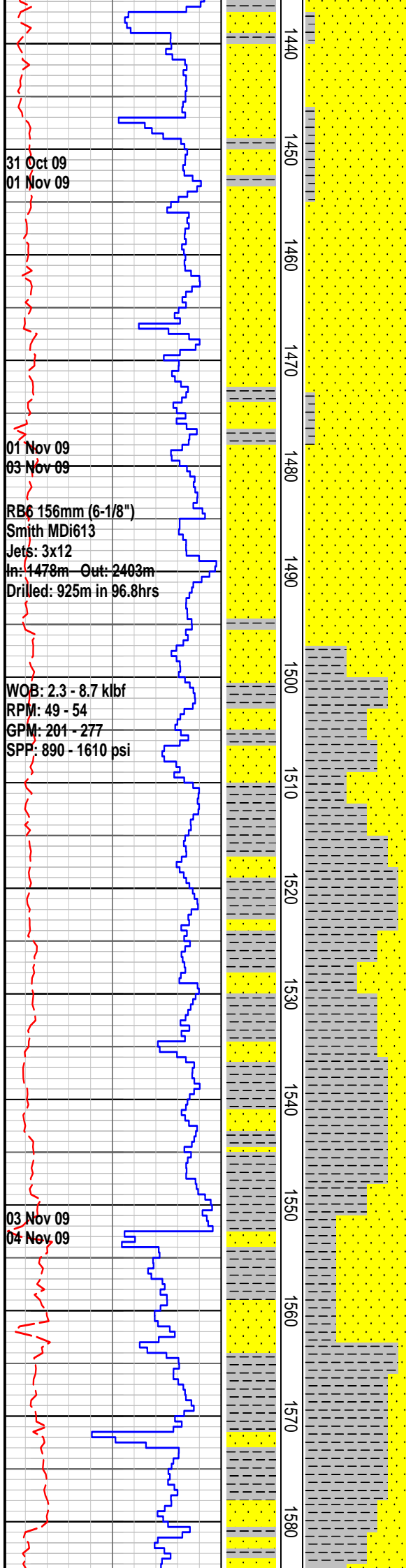
STG: 1.15unit @ 1366m  
TG: 1.44unit @ 1366m

TG: 0.44unit @ 1378m

TOT GAS: 54.66unit @  
1387m

TOT GAS: 120.20unit @  
1432m

MW 10.35 FV 54 PV 20 YP 34



MW 10.0 FV 42 PV 10 YP 22  
Gels 4/7 F N/A Ck 35.0 Sol 9.5  
pH 9.5 CI 16.8k

SANDSTONE: lt gry-lt gn gry, v f-rr m,  
dom f, dom f, sbang-sbrnd, mod srtd,  
mod sil cmt, wk calc cmt i/p, abd off  
wh argill mtrrx, abd alt fspr gr & rd brn  
gry & gn lith, 10% qtz gr, tr crs brn  
mic flks, tr v f blk carb detr, tr pyr, fri,  
v p vis por, no fluor

DST #1 1383m - 1478m  
IF 15 min  
ISI 90 min  
FF 180 min  
FSI 540 min  
GTS 5 min into FF @ RTSM  
Rec 140m gas cut rathole mud

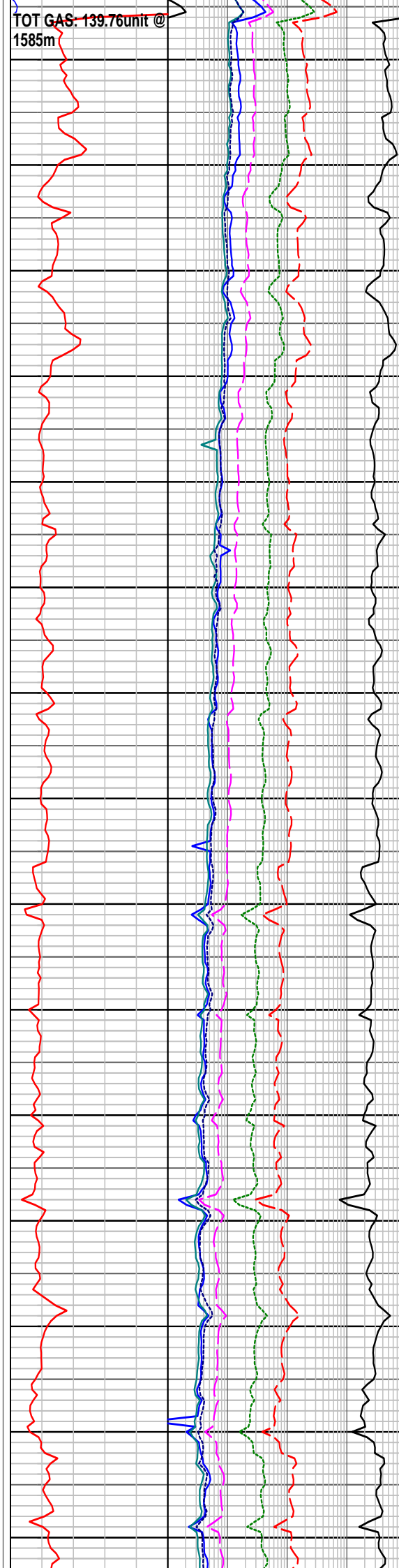
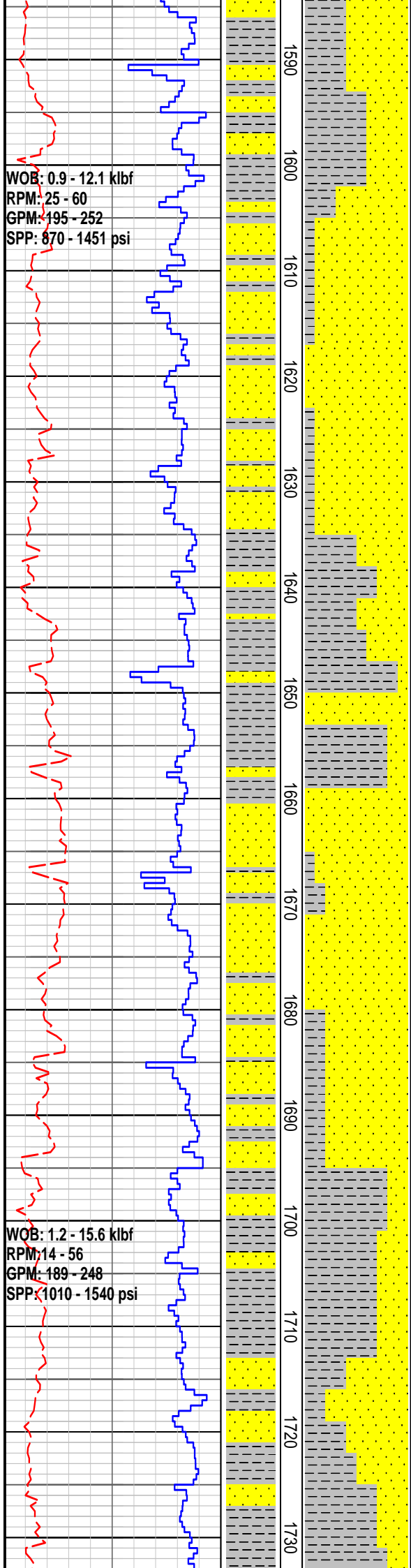
SANDSTONE: lt gn gry, v f-occ m,  
dom f, sbang-sbrnd, mod srtd, mod si  
cmt, wk calc cmt i/p, abd off wh argill  
mtrrx, abd alt fspr gr & rd brn gry & gn  
lith, 10% qtz gr, tr crs brn mic flks, tr v  
f blk carb detr, rr pyr, fria, v p vis por,  
no fluor

CLAYSTONE: lt-m brn gry-m gry-occ  
m gn gry, v slty i/p grdg to argill  
SLTST, v f aren i/p, tr v f off wh alt  
fspr gr, tr-com brn-blk carb spks, tr  
micrmic, frm, v disp, sli sbfiss

MW 9.8 FV 46 PV 15 YP 22  
Gels 5/7 F N/A Ck 28 Sol 7.8  
pH 9.5 CI 18.0k

SANDSTONE: lt gn gry, v f-f, dom f,  
sbang-sbrnd, mod srtd, mod sil cmt,  
wk calc cmt i/p, abd off wh argill mtrrx,  
abd alt fspr gr & rd brn gry & gn lith,  
com qtz gr, tr crs brn mic flks, tr v f  
blk carb detr, tr calc lined frac, fria, no  
vis por, no fluor

MW 9.7 FV 39 PV 10 YP 17  
Gels 3/4 F 9.0 Ck 1.0 Sol 7.3  
pH 9.5 CI 12.0k



CLAYSTONE: lt-m gn gry-m gry-m brn gry, mod-v slty grd to argill SLTST i/p, v f aren i/p, tr v f off wh alt fspr gr, tr-com brn-blk carb spks & c detr, tr micrmic, frm, v disp, sli sbfiss

SANDSTONE: lt gn gry, v f-m, dom m, sbang-sbrnd, mod srtd, mod sil cmt, wk calc cmt i/p, abd off wh argill mtrx, abd alt fspr gr & rd brn gry & gn lith, com qtz gr, tr crs brn mic flks, tr blk c detr, fria, no vis por, no fluor

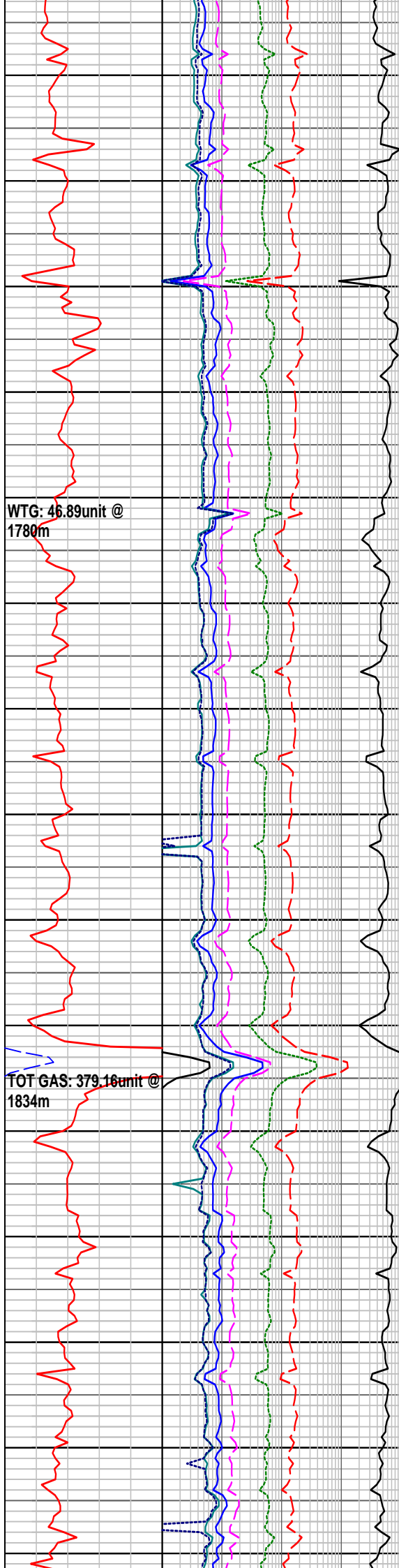
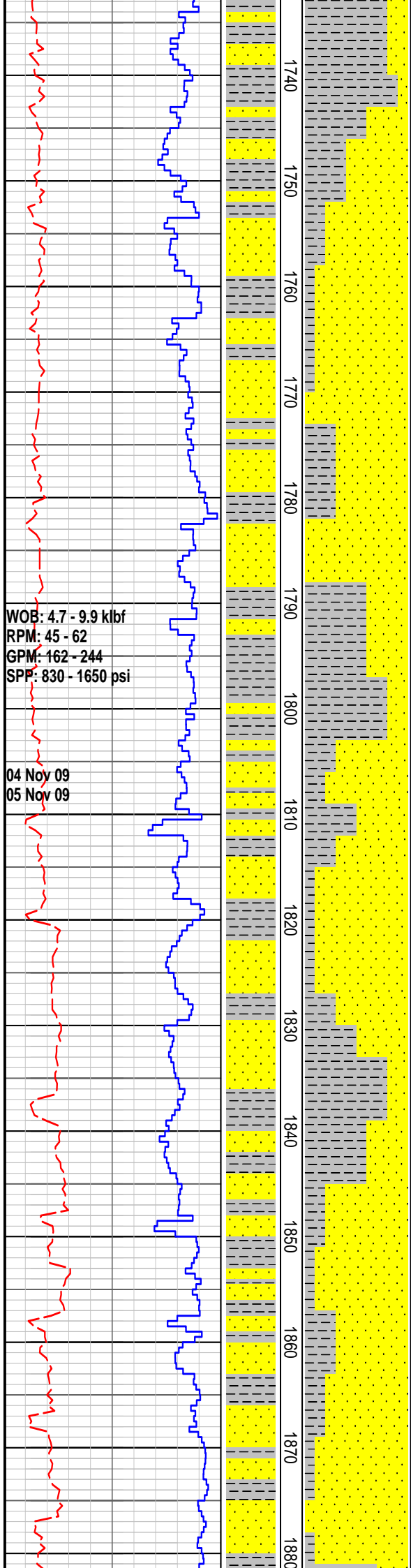
SANDSTONE: lt gn gry, v f-m, dom f, sbang-sbrnd, mod srtd, mod sil cmt, mod-strong calc cmt i/p, abd off wh argill mtrx, abd alt fspr gr & rd brn gry & gn lith, com qtz gr, tr crs brn mic flks, tr blk c detr, rr calc infilled frac, fria, p vis por, no fluor

MW 9.75 FV 42 PV 13 YP 22  
Gels 3/5 F 7.5 Ck 1.0 Sol 7.6  
pH 9.5 CI 10.5k

CLAYSTONE: lt-m gn gry-m gry-m brn gry, mod-v slty grd to argill SLTST i/p, v f aren i/p, tr v f off wh alt fspr gr, tr-com brn-blk carb spks & c detr, tr micrmic, tr calc infilled frac, frm-mod hd, v disp, sli sbfiss

SANDSTONE: lt gn gry, v f-f, dom f, sbang-sbrnd, mod srtd, mod sil cmt, mod-strong calc cmt i/p, abd off wh argill mtrx, abd alt fspr gr & rd brn gry & gn lith, com qtz gr, tr crs brn mic flks, tr blk c detr, rr calc infilled frac, fria, no vis por, no fluor





fria, p vis por, no fluor

CLAYSTONE: lt-m gn gry-m gry-m brn gry, mod-v slty grd to argill SLTST i/p, v f aren i/p, tr v f off wh alt fspr gr, tr-com brn-blk carb spks & c detr, tr micrmic, rr calc infilled frac, frm-mod hd, v disp, sli sbfiss

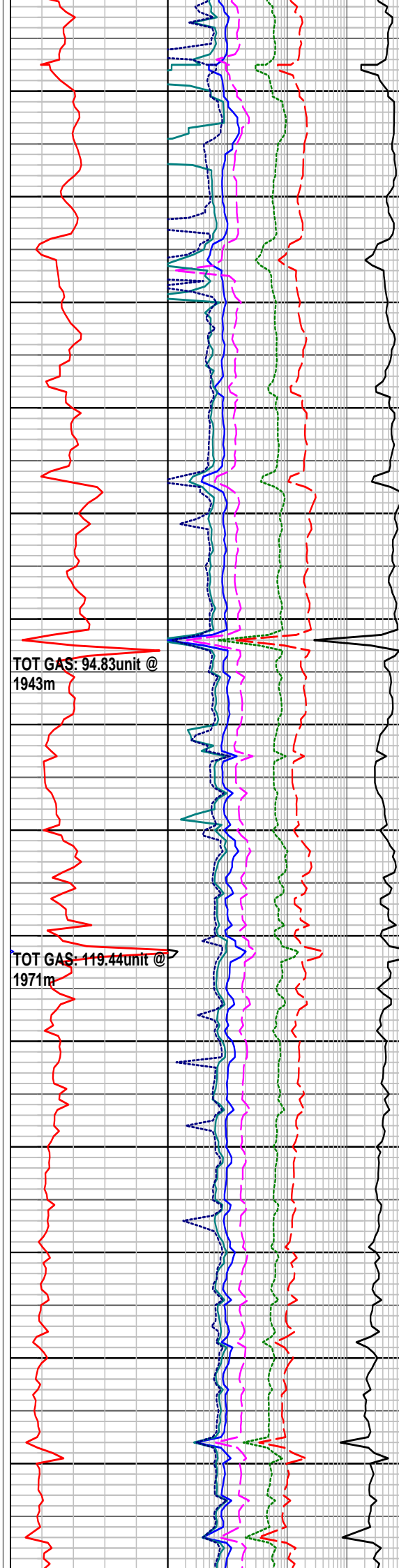
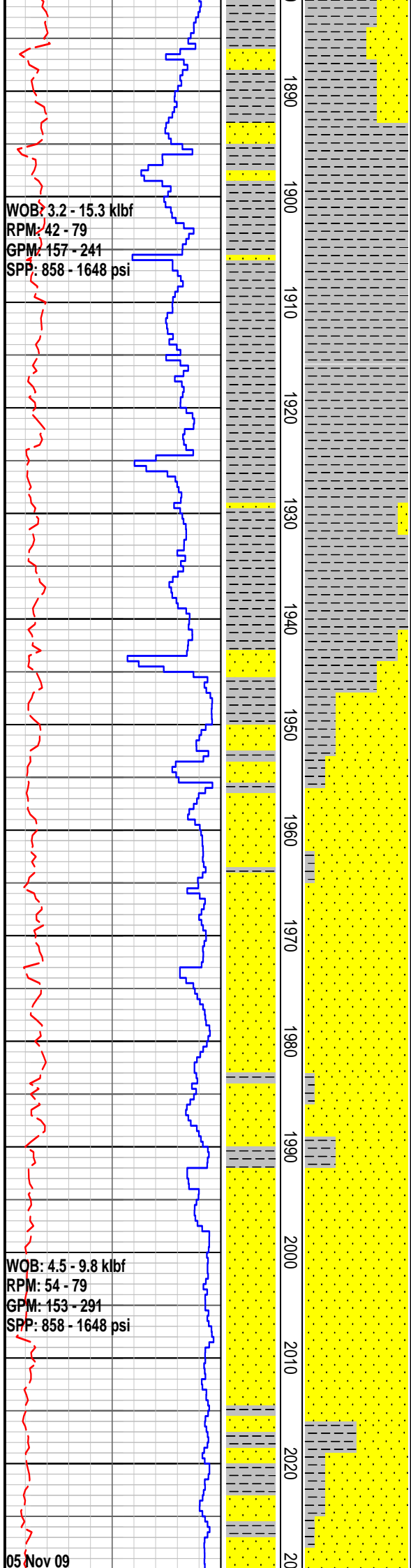
Survey at 1768m  
N340degsW  
4 degs

CLAYSTONE: lt-m gn gry-m gry-m brn gry, mod-v slty grd to argill SLTST i/p, v f aren i/p, tr v f off wh alt fspr gr, tr brn-blk carb spks & c detr, tr micrmic, tr calc infilled frac, frm-mod hd, v disp, sbfiss

MW 9.9 FV 44 PV 14 YP 21  
Gels 2/4 F 8.0 Ck 1.0 Sol 8.7  
pH 9.5 Cl 10.0k

SANDSTONE: lt gn gry-m gn, v f-m, dom f, sbang-sbrnd, mod srtd, mod sil cmt, mod calc cmt i/p, com-abd off wh-m gn argill mtrx, abd alt fspr gr & rd brn gry & gn lith, com qtz gr, tr crs brn mic flks, tr blk c detr, tr calc infilled frac, fria, fr vis por, no fluor

SANDSTONE: off wh-lt gn gry-lt pk, v f-f, dom f, sbang-sbrnd, mod srtd, strong sil cmt, mod calc cmt i/p, abd off wh-m gn argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, tr qtz gr, tr crs gn brn mic flks, tr blk



qtz gr, tr crs gn brn mic nks, tr blk & detr, tr calc infilled frac, hd, no vis por, no fluor

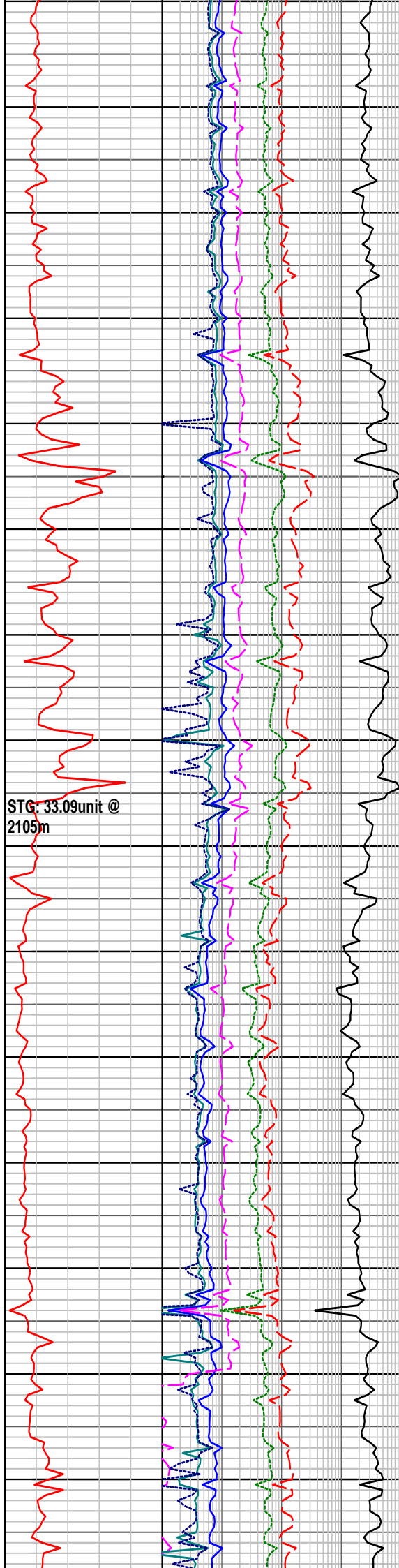
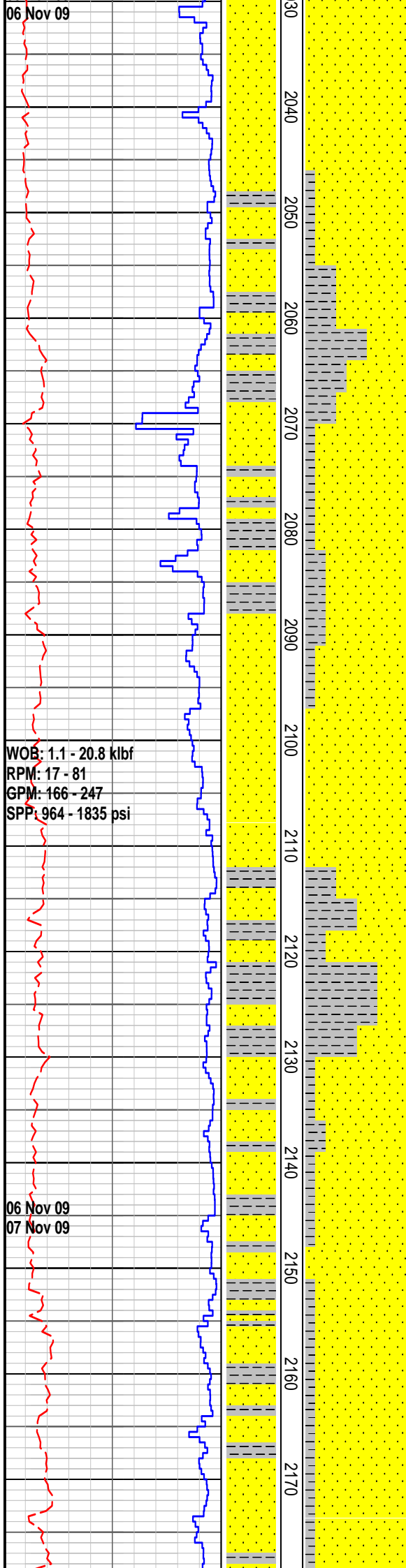
CLAYSTONE: lt-m gn gry, occ m gn gry-m brn gry, mod-v slty grdg to argill SLTST i/p, v f aren i/p, tr-com v f off wh alt fspr gr, tr brn-blk carb spks & c detr i/p, tr-com micrmic, rr calc infilled frac, mod hd, v disp, sbfiss

MW 10.0 FV 41 PV 12 YP 18  
Gels 3/4 F 8.5 Ck 1.0 Sol 9.6  
pH 9.0 Cl 10.0k

SANDSTONE: off wh-lt gn gry, v f-m, dom f, sbang-sbrnd, mod srtd, strong sil cmt, mod calc cmt i/p, abd off wh-occ pk argill mtrx, abd wh & occ pk fspr gr, com gn rd brn gry & blk lith, tr qtz gr, tr crs gn brn mic flks, tr blk c detr, tr calc & rd min vn, hd, no vis intgran por, no fluor

CLAYSTONE: lt-m gry-occ m brn gry, mod-v slty, v f aren i/p, tr-com v f off wh alt fspr gr, tr-com brn-blk carb spks & c detr, tr-com micrmic, tr calc & rd min infilled frac, com slick, mod hd, v disp, sbfiss

MW 9.8 FV 39 PV 13 YP 14  
Gels 2/4 F 11.5 Ck 1.0 Sol 8.3  
pH 8.5 Cl 10.0k



SANDSTONE: off wh-lt gn gry-lt pk gry, v f-occ m, dom f, sbang-sbrnd, mod srted, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & occ pk fspr gr, com gn rd brn gry & blk lith, 10% qtz gr, tr gn brn mic flks, rr blk c detr, tr calc & rd min vn, hd, no vis intgran por, no fluor

CLAYSTONE: m gn gry-m gry-m brn gry, mod-v slty, v f aren i/p, tr-com v f off wh alt fspr gr, tr-com brn-blk carb spks & c detr, com micrmic, tr calc & rd min infilled frac, com slick, mod hd, v disp, sbfiss

SANDSTONE: off wh-lt gn gry, lt pk gry, v f-occ m, dom f, sbang-sbrnd, mod srted, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, 10% qtz gr, tr gn brn mic flks, com-abd blk c detr, tr calc & rd min vn, hd, no vis intgran por, no fluor. The c has no fluor but gives a mod brt slow stmg-crush milky wh cu fluor

Survey at 2105m  
12 degs

CLAYSTONE: m gry, occ m gn gry-m brn gry, mod-v slty, v f aren i/p, tr-com v f off wh alt fspr gr, com brn-blk carb spks & c detr, com micrmic, tr calc infilled frac, com slick, mod hd, v disp, sbfiss

MW 9.4 FV 34 PV 7 YP 14  
Gels 3/7 F 25.6 Ck 2.0 Sol 5.6  
pH 8.3 Cl 7.0k

SANDSTONE: off wh-lt gn gry, lt pk gry, v f-occ m, dom f, sbang-sbrnd, mod srted, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, 10% qtz gr, tr gn brn mic flks, com-abd blk c detr, com calc & rd min vn, hd, no vis intgran por, no fluor

WOB: 4.9 - 12.3 klbf  
RPM: 57 - 75  
GPM: 221 - 241  
SPP: 1470 - 1668 psi

07 Nov 09  
08 Nov 09

WOB: 2.2 - 15.9 klbf  
RPM: 19 - 96  
GPM: 137 - 237  
SPP: 860 - 1676 psi

TOT GAS: 100.23unit @  
2200m

TOT GAS: 81.36unit @  
2224m

SANDSTONE: off wh-lt gn gry, lt pk gry, v f-occ m, dom f, sbang-sbrnd, mod srtd, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, com qtz gr, tr gn brn mic flks, com-abd blk c detr, com calc & rd min vn, hd, no vis intgran por, no fluor

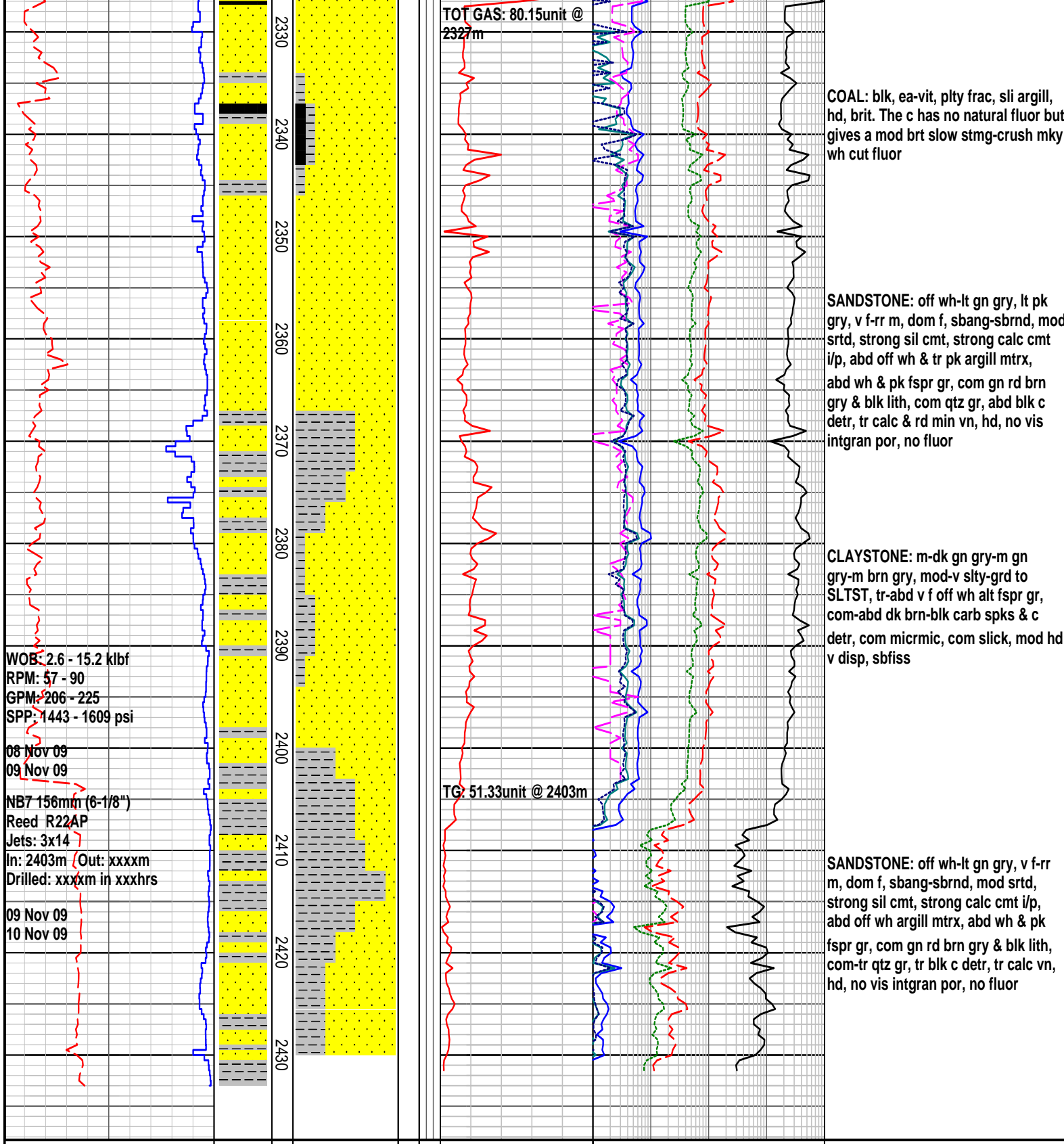
SANDSTONE: off wh-lt gn gry, lt pk gry, v f-occ m, dom f, sbang-sbrnd, mod srtd, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, com qtz gr, tr gn brn mic flks, com-abd blk c detr, com calc & rd min vn, hd, no vis intgran por, no fluor

Survey at 2235m  
N340degSW  
18.50 degs

CLAYSTONE: m gry-m gn gry, mod-v slty, v f aren i/p, tr-com v f off wh alt fspr gr, tr brn-blk carb spks & c detr, com micrmic, tr calc & rd min infilled frac, com slick, hd, v disp, sbfiss

SANDSTONE: off wh-lt gn gry, lt pk gry, v f-rr m, dom f, sbang-sbrnd, mod srtd, strong sil cmt, strong calc cmt i/p, abd off wh & tr pk argill mtrx, abd wh & pk fspr gr, com gn rd brn gry & blk lith, com qtz gr, tr-com blk c detr, tr calc & rd min vn, hd, no vis intgran por, no fluor





FORMATION EVALUATION LOG

RATE OF PENETRATION											REMARKS
ROP (0-100m/hr)											
100	90	80	70	60	50	40	30	20	10		
Backup ROP (100-200m/hr)											
200	190	180	170	160	150	140	130	120	110		
WOB (klb)											
5	10	15	20	25	30	35	40	45	50		
LITHOLOGY											
LITHOLOGY											
INTERPRETED LITHOLOGY											
MD meters 1:500											
OIL SHOWS											
CORE											
TOTAL GAS											
TOTAL GAS											
20   40   60   80   100											
unit											
BACKUP TOTAL GAS											
280   460   640   820   1000											
unit											
CHROMATOGRAPH											
1 Methane ppm 10000											
1 Ethane ppm 10000											
1 Propane ppm 10000											
1 iso-Butane ppm 10000											
1 n-Butane ppm 10000											
1 iso-Pentane ppm 10000											
n-Pentane ppm											
10   100   1000   10000											